



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,291	06/30/2003	Lawrence A. Booth JR.	884.897US1	5782

7590 12/10/2004

Schwegman, Lundberg, Woessner & Kluth, P.A.
P.O. Box 2938
Minneapolis, MN 55402

EXAMINER

TUNG, KEE M

ART UNIT	PAPER NUMBER
----------	--------------

2676

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,291

Applicant(s)

BOOTH ET AL.

Examiner

Kee M Tung

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-5,8,11,14,15,17,20,21,23-25,27 and 28 is/are rejected.
7) ☒ Claim(s) 2,6,7,9,10,12,13,16,18,19,22 and 26 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-5, 8, 11, 14, 15, 17, 20, 21, 23-25 and 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Whelan et al (US 2004/0199798 hereinafter "Whelan").

3. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Whelan teaches a processing system (Fig. 1) comprising an application processor (80) having a first graphics interface (90); a coprocessor (120) having a second graphics interface (not shown, but usually include in the graphics processor chip in order to communicate or interface or connect with the host processor or host bus) to communicate pixel stream formatted graphics command data and pixel stream

formatted image data (graphics and image data are well known and are considered part of the multi-media data, page 1, paragraph 2) with the application processor, the coprocessor also having a display interface (not shown, but also inherent in the art to include in order to connect to the display devices to provide display data to a graphics display (170 and 180); and a high-speed datapath (110) between the first graphics interface and the second graphics interface. Therefore, at least claim 1 and 14 are anticipated by Whelan.

As per claim 3, Whelan teaches the coprocessor further comprises a coprocessor processing core (160) responsive to the graphics command data and image data to generate the display data for graphics display.

As per claims 4 and 5, Whelan teaches the coprocessor comprises a graphics accelerator to offload some graphics processing operations from the application processor (this is what the graphics accelerator for in the graphics art to offload the application processor for processing 2D and 3D graphics operations), multimedia encoding and decoding operations (inherent features in the multimedia application, page 1, paragraph 2), and display refresh operation (title), the at least some graphics processing operations indicated by the graphics command data.

As per claim 8, Whelan teaches the coprocessor is an integrated part of the graphics display (Whelan's invention is for a mobile device, such as, portable telephone in which the application processor and coprocessor are considered an integrated part of the display device).

As per claim 11, Whelan teaches the coprocessor comprises one of a graphics accelerator, a hardware accelerator, or a companion device (80).

Claims 15 and 17 are similar in scope to claims 1 and 3, and thus are rejected under similar rationale.

As per claim 20, Whelan further teaches a RF circuitry to interface with an antenna for communication of RF signals (30); the application processor and coprocessor communicate at least one or either digitally encoded data or digitally encoded voice signals (multimedia data includes graphics, video and audio data) over the high speed datapath (110), wherein wireless transceiver functions are allocated between the application processor and the coprocessor for wireless communications (page 1, paragraph 10, wireless communication device 10).

Claims 21 and 24 are similar in scope to claims 1 and 5, and thus are rejected under similar rationale.

As per claim 23, Whelan teaches refraining, by application processor (80), from sending the graphics command data along with pixel stream formatted image data to the coprocessor (120) over a system bus (110).

Claim 25 is similar in scope to claim 1, and additionally requires an omnidirectional antenna (30) to receive communication signals and a receiver (20) to translate the communication signals to data signal.

Claims 27 and 28 are similar in scope to claims 3 and 4, and thus are rejected under similar rationale.

Allowable Subject Matter

4. Claims 2, 6, 7, 9, 10, 12, 13, 16, 18, 19, 22 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

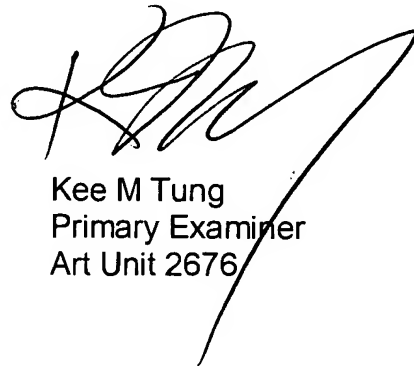
Mizuyabu et al (6,297,832) teaches the video graphics circuit (10) includes 2D and 3D graphics processors (70 and 80) and video processor (60) includes MPEG decoder (col. 3, lines 49-67).

Hsu (5,790,138) teaches a graphics controller (305) includes system interface 404, video processor 403, graphics accelerator 402, a display control 401 and a memory interface 411.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kee M Tung whose telephone number is 703-305-9660. The examiner can normally be reached on Tuesday - Friday from 5:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kee M Tung
Primary Examiner
Art Unit 2676